

REMARKS

Claims 12, 21 and 24 to 26 have been amended. Claims 12 to 29 remain active in this application.

Claims 12 to 29 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. The rejection is respectfully traversed. In this regard, the examiner is referred to M.P.E.P. 2173(c) D wherein the term "substantially" is stated by Court decision not to be indefinite. Furthermore, it is not indefinite in the sense used in the present claims. The intent is to totally saturate the device with hydrogen. However, it is possible and probably likely to a very small and insignificant number of sites may be unsaturated without in any way altering the invention herein. Such devices are also covered by the invention herein and the term "substantially" is used to cover such devices.

Claim 12, 20, 21 and 29 were rejected under 35 U.S.C. 102(b) as being anticipated by Ino et al. (U.S. 5,888,839). The rejection is respectfully traversed.

Claim 12 requires, among other features, the steps of applying a planarizing dielectric layer on top of the semiconductor device and the metal interconnect layer; and then providing a hydrogen treatment until hydrogen diffuses throughout and substantially saturates the semiconductor device. No such steps are taught or even remotely suggested by Ino et al. Ino et al. provide the hydrogen for an entirely different purpose and, more importantly, do not diffuse the hydrogen throughout and substantially saturating the semiconductor device. This treatment will either pacify any dangling bonds in the semiconductor device to prevent damage to the gate oxide layer or cause the hydrogen to bond with contaminants, thereby making the contaminant too large to diffuse through the semiconductor device. No such treatment is taught or even remotely suggested by Ino et al.

Claim 12 has been amended to further differentiate from Ino et al. in requiring that the metal layer be in interconnect and not a part of an active element as provided by Ino et al.

The above features are also found in claim 21. In addition, claims 13 14, 17, 19, 20, 22, 23, 26, 28 and 29 depend from one of claims 12 and 21 and therefore define patentably over Ino et al. for at least the reasons presented above with reference to claim 12.

Claims 12 to 14 and 21 to 23 were rejected under 35 U.S.C. 102(b) as being anticipated by Mora (U.S. 4,920,077). The rejection is again respectfully traversed.

With reference to claims 12 and 21, the argument presented above with reference to Ino et al. applies as well in this case and is incorporated by reference. Claims 13 and 14 depend from claim 12 and claims 22 and 23 depend from claim 21 and therefore define patentably over Mora for at least the reasons presented above with reference to claims 12 and 21.

The allowability of claims 15 to 19 and 24 to 28 is noted with appreciation.

In view of the above remarks, reconsideration and allowance are respectfully requested.

Respectfully submitted,


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